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EXAMINER

JUNTIMA, NITTAYA

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/658,759	WADA, NAOYUKI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nittaya Juntima	2663	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 11-13 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9 is/are rejected.
- 7) ☒ Claim(s) 7, 8 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. This action is in response to the amendment filed on 6/17/2005.
2. The objections to the specification and claims, and the rejection under 112, second paragraph are withdrawn in view of applicant's amendment.
3. Claims 11-13 were cancelled, and claim 14 is allowed.
4. Claims 7-8 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claims 1-3 remain rejected under 35 U.S.C. 102(e).
6. Claims 4-6 and 9 also remain rejected under 35 U.S.C. 103(a).

### *Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

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reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by McClard (USPN 6,438,752 B1).

Regarding claim 1, as shown in Fig. 2, McClard teaches a communication system (a cable television network 30) comprising:

A transmitting apparatus (head-end server 34) for sending multiplexed program data (video and audio signals in program signals 32) and transmitting a multiplexing schedule table (program information showing availability, category, running period in program signals 32 must be in a table format) indicating a multiplexing schedule of data (structure not defined, reads program information including running period and content/category of each program available during a particular time frame, col. 4, ll 35-39) on to be transmitted to a receiving apparatus, in a communication network (a cable television network 30) connecting with a transmitting apparatus (head-end server 34) and a receiving apparatus (set-top box 38). See col. 4, ll 23-45.

A receiving apparatus (set-top box 38) for transmitting request information (a second input signal from user indicating that the current channel is not acceptable and requesting to select another channel) indicating which program is being viewed/listened. See Fig. 1, col. 3, ll 33-53 and col. 4, ll 49-51.

A filter unit (tuner 60, Fig. 3) for changing a filtering characteristic of itself based on the schedule table (program information in program signals 32) received from the transmitting apparatus (head-end server 34) and the request information (a second input signal) received from the receiving apparatus (set-top box 38), such that data (program on another channel) specified

by the request information is transmitted to the receiving apparatus. See col. 3, ll 44-53 and col. 6, ll 16-27 and 41-54.

Regarding claim 2, it is inherent that the program data must be multiplexed by TDMA and FDM since different video/audio signals are transmitted at different time and on different channels, col. 4, ll 27-32 and 35-39.

Regarding claim 3, the communication network, i.e. the cable television system 30 in Fig. 2, must be an RF communication network.

*Claim Rejections - 35 USC § 103*

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baran (USPN 5,870,395) in view of McClard (USPN 6,438, 752 B1), and further in view of Laubach et al. ("Laubach") (USPN 6,075,972).

Regarding claim 4, Baran a communication system (Fig. 3) comprising:

A first transmitting/receiving apparatus (a head end 140) for transmitting multiplexed program data (TV signals transmitted on the downstream feeder cable 8) to a second transmitting/receiving apparatus (subscriber interface unit 70), to a filter unit (a filter 60). See col. 5, ll 16-48.

The second transmitting/receiving apparatus (subscriber interface unit 70) for transmitting data (600 MHz signal transmitted from subscriber interface unit 70) to the first transmitting/receiving apparatus (the head end 140). See col. 5, ll 61-col. 6, ll 5.

The filter unit (a filter 60) for filtering data (TV signals) transmitted from the first transmitting/receiving apparatus (the head end 140) and for filtering data (600 MHz signal transmitted from subscriber interface unit 70) transmitted from the second transmitting/receiving apparatus (subscriber interface unit 70) to the first transmitting/receiving apparatus (the head end 140). See col. 5, ll 43-48, 61-col. 6, ll 5.

However, Baran fails to teach (i) the first transfer schedule table information which is transmitted by the first transmitting/receiving apparatus, received by the filter unit, and used by the filter unit in filtering data transmitted from the first transmitting/receiving apparatus, and (ii) the second transfer schedule table information which is transmitted by the first transmitting/receiving apparatus, received by the filter unit, and used by the filter unit in filtering data transmitted from the second transmitting/receiving apparatus as recited in the claim.

Regarding (i), McClard teaches transmitting a first transfer schedule table information (program information) from a head end server 34 in Fig. 4 to a set-top box 38 for indicating a schedule of the program data (col. 4, ll 27-32 and 35-45).

Given Baran teaching on using a filter unit (filter 60 in Fig. 3) for passing a low pass section for passing the 5-30 MHz and TV signals and a high pass section for passing 550-700 MHz and bi-directional data transmission, (col. 5, ll 16-33, 43-48) and the teaching of McClard, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching and the filter unit of Baran to include transmitting the first transfer schedule table

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information indicating a schedule of the program data from a head end to a set-top box into the teaching of Baran such that the first transfer schedule table information would be transmitted by the first transmitting/receiving apparatus (head end 140, Fig. 3 of Baran), and received by a low pass section of the filter unit (a filter unit 60, Fig. 3 of Baran) that would filter data (TV programs) transmitted to the second transmitting/receiving apparatus based on the schedule table information as recited in the claim. The motivation/suggestion to do so would have been to provide TV program information such as the running period and the content category of each program available during a particular time frame to a TV viewer (McClard, col. 4, ll 36-39) and allowing the viewer to see the TV programs according to the schedule as such modification involves only routine skill in the art and would not produce any unexpected results.

Regarding (ii), Laubach teaches the well known protocol and data format used for transmitting in the upstream coaxial cable system including transmission of a second transfer schedule table information (grant message 402 concerning data to be transmitted from a modem 112 to a head end controller 102, Fig. 4) from the head-end to a cable modem (col. 9, ll 24-29 and col. 10, ll 47-60).

Given Baran teaching on using a filter unit (filter 60 in Fig. 3) for passing a low pass section for passing the 5-30 MHz and TV signals and a high pass section for passing 550-700 MHz and bi-directional data transmission, (col. 5, ll 16-33, 43-48) and Laubach teaching of transmitting a second transfer schedule table information from the head-end to a cable modem, therefore it would have been obvious to one skilled in the art at the time the invention was made to modify the combined teaching Baran and McClard, particularly the filter unit of Baran, to include transmitting from the head-end the second transfer schedule table information

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concerning data to be transmitted from the second transmitting/receiving apparatus to the first transmitting/receiving apparatus such that the second transfer schedule table information would be transmitted by the first transmitting/receiving apparatus (head end 140, Fig. 3 of Baran) and received by the filter unit (a filter unit 60, Fig. 3 of Baran) which would filter data transmitted from the second transmitting/receiving apparatus (subscriber interface unit 70) based on the second information as recited in the claim. The motivation/suggestion to do so would have been to assign appropriate upstream slot(s) to the end user as taught by Laubach (col. 10, ll 52-60), and allow the upstream slot(s) to be transmitted/filtered to the head-end according to the upstream slot assignment as such modification involves only routine skill in the art and would not produce any unexpected results.

11. Claims 5-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baran (USPN 5,870,395) in view of McClard (USPN 6,438, 752 B1), and further in view of Laubach et al. ("Laubach") (USPN 6,075,972) and Anderson, Jr. et al. ("Anderson, Jr.") (USPN 6,226,794 B1).

Regarding claims 5 and 9, as shown in Fig. 3, Baran teaches that the first transmitting/receiving apparatus (the head end 140) transmits downstream data (TV signals) transmitted from the first transmitting/receiving apparatus (the head end 140) to the second transmitting/receiving apparatus (subscriber interface unit 70) (col. 5, ll 16-33), and the second transmitting/receiving apparatus transmits the upstream data (600 MHz signal transmitted from subscriber interface unit 70) to the filter unit (a filter 60) (col. 5, ll 16-48).

However, Baran fails to teach (i) schedule data for the downstream data, (ii) schedule data for upstream data which is multiplexed with one frequency, (iii) transmitting by the filter

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unit the schedule data for the downstream data, (iv) transmitting by the filter unit the schedule data for the upstream data to the second transmitting/receiving apparatus, and (v) transmitting the upstream data to the first transmitting/receiving apparatus, and (vi) transmitting information for filtering the downstream data by the filter unit to the filter unit as recited in the claims.

Regarding (i) and (iii), McClard teaches (i) schedule data which specifies contents of the downstream data by frequency (channel) and time (col. 4, ll 23-39). Given the teaching of McClard, it would have been obvious to modify the teaching of Baran to include (i) the schedule data for the downstream data such that (iii) the filter unit (a filter 60, Fig. 3 of Baran) would transmit the schedule data to the second transmitting/receiving apparatus (subscriber interface unit 70, Fig. 3 of Baran). The motivation/suggestion to do so would have been to indicate to the end user, e.g. TV viewer, the running period and the content category of each program available during a particular time frame (McClard, col. 4, ll 36-39).

Regarding (ii), (iv), and (v), Laubach teaches (ii) schedule data (grant message 402) for transmitting upstream data requested from a modem 112 to a head end controller 102, Fig. 4 which must be multiplexed with one frequency (col. 10, ll 47-60). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined teaching of Baran and McClard to include (ii) the schedule data for upstream data which must be multiplexed with one frequency such that (iv) the filter unit (a filter 60, Fig. 3 of Baran) would transmit the schedule data for the upstream data to the second transmitting/receiving apparatus (subscriber interface unit 70, Fig. 3 of Baran) and (v) the upstream data to the first transmitted/receiving apparatus as recited in the claim. The motivation/suggestion to do so

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would have been to assign appropriate upstream slot(s) to the end user as taught by Laubach (col. 10, ll 52-60).

Regarding (vi), Anderson, Jr. teaches information (control information from user used in controlling information sent from service provider) for filtering the downstream data (information, e.g. video/audio) (col. 1, ll 60-col. 2, ll 3 and 47-57). Given the teaching of Anderson, Jr., it would have been obvious to one skilled in the art to modify the combined teaching of Baran, McClard, and Laubach to include information for filtering the downstream data such that (iv) the second transmitting/receiving apparatus (subscriber interface unit 70, Fig. 3 of Baran) would transmit the information for filtering the downstream data by the filter unit (a filter 60, Fig. 3 of Baran), to the filter unit. The motivation/suggestion to do so would have been to enable the user to control the information transmitted to the user as taught by Anderson, Jr. (col. 2, ll 47-51).

Regarding claim 6, Baran teaches the filter unit (a filter 60 for filtering upstream data to and TV signals to subscriber interface unit 70, Fig. 3), but fails to teach that the filter unit performs filtering processing according to the schedule data for the upstream data when it does not transmit the upstream data to the first transmitting/receiving apparatus. Laubach teaches schedule data (grant message 402) for upstream data transmitted from a head end controller 102, Fig. 4 (col. 10, ll 47-60). Therefore, it would have been obvious to one skilled in the art to modify the teaching of Baran to include that the filter unit performs filtering processing according to the schedule data for the upstream data when it does not transmit the upstream data to the first transmitting/receiving apparatus as recited in the claim. The suggestion/motivation to do so would have been to maintain a continuous flow of TV signal to the viewer.

*Response to Arguments*

12. Applicant's arguments filed 6/17/05 have been fully considered but they are not persuasive.

A. In the remarks regarding claim 1, the applicant argued that McClard does not teach a limitation "a transmitting apparatus configured to send multiplexed program data and to transmit a schedule table indicating a multiplexing schedule of data to be transmitting to a receiving apparatus."

In response, McClard clearly teaches multiplexed program data (video and audio signals) and a schedule table (program information inherently in a table format) -- "Program signals 32 include video signals, audio signals, and program information for all channels available on cable television network 30," col. 4, ll 29-32, and "...the program information, including the running period...and the content/genre category of each program available during a particular time frame...," col. 4, ll 35-39, emphasis added. Further, McClard clearly teaches a transmitting apparatus (head-end) for transmitting the multiplexed program data and the schedule table -- "Set-top box 38 receives program signals 32 from head-end server 34," col. 4, ll 43-45, emphasis added. Therefore, the multiplexed program data must be transmitted by the head-end 34 to the set-top box 38. McClard clearly teaches the limitation as recited in the claim. Therefore, the rejections of claim 1 and its dependent claims are sustained.

B. In the remarks regarding claim 4, the applicant argued that the combined teaching of Baran, McClard, and Laubach fails to teach the limitation "wherein the filter unit is configured to receive the first transfer schedule table information and the second transfer schedule table information...based on the second transfer schedule table information" as recited in the claim.

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In response, given the teaching in the same field of cable TV transmission system,

- Baran teaches a filter unit (filter 60 in Fig. 3) for passing a low pass section for passing the 5-30 MHz and TV signals and a high pass section for passing 550-700 MHz and bi-directional data transmission, (col. 5, ll 16-33, 43-48),

- McClard teaches transmitting a first transfer schedule table information (program information) from a head end server 34 in Fig. 4 to a set-top box 38 for indicating a schedule of the program data (col. 4, ll 27-32 and 35-45).

- Laubach teaches the well known protocol and data format used for transmitting in the upstream coaxial cable system including transmission of a second transfer schedule table information (grant message 402 concerning data to be transmitted from a modem 112 to a head end controller 102, Fig. 4) from the head-end to a cable modem (col. 9, ll 24-29 and col. 10, ll 47-60).

Therefore, regarding receiving the first transfer schedule table information and filtering data based on the first information, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching and the filter unit of Baran to include transmitting the first transfer schedule table information of McClard into the teaching of Baran such that the first transfer schedule table information would be transmitted by the first transmitting/receiving apparatus (head end 140, Fig. 3 of Baran) and received by the low pass section of the filter unit (a filter unit 60, Fig. 3 of Baran) that would filter data (TV programs) transmitted to the second transmitting/receiving apparatus based on the schedule table information as recited in the claim. The motivation/suggestion to do so would have been to provide TV program information such as the running period and the content category of each

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program available during a particular time frame to a TV viewer (McClard, col. 4, ll 36-39) and allowing the viewer to see the TV programs according to the schedule as such modification involves only routine skill in the art and would not produce any unexpected results.

Therefore, regarding receiving the second transfer schedule table information and filtering data from the second transmitting/receiving apparatus based on the second information, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching and the high pass section of the filter unit of Baran to include transmitting from the head-end the second transfer schedule table information concerning data to be transmitted from the second transmitting/receiving apparatus to the first transmitting/receiving apparatus of Laubach such that the second transfer schedule table information would be transmitted by the first transmitting/receiving apparatus (head end 140, Fig. 3 of Baran) and received by the high pass section of the filter unit (a filter unit 60, Fig. 3 of Baran) which would filter data transmitted from the second transmitting/receiving apparatus (subscriber interface unit 70) based on the second information as recited in the claim. The motivation/suggestion to do so would have been to assign appropriate upstream slot(s) to the end user as taught by Laubach (col. 10, ll 52-60), and allow the upstream slot(s) to be transmitted/filtered to the head-end according to the upstream slot assignment as such modification involves only routine skill in the art and would not produce any unexpected results.

The applicant failed to point out an error in the motivation, therefore, with the explanation provided above, the rejection of claim 4 and its dependent claims are maintained.

### ***Conclusion***

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima  
September 2, 2005

NT

  
RICKY NGO  
PRIMARY EXAMINER

5/9/05